

(FILE 'HOME' ENTERED AT 14:20:07 ON 26 APR 2000)

FILE 'CAPLUS' ENTERED AT 14:20:33 ON 26 APR 2000

L1	186869	S	PLATINUM OR PT
L2	5391	S	OXYGEN AND OZONE
L3	117	S	L1(P)L2
L4	4	S	L3 AND DIELECTRIC
L5	124168	S	PLATINUM
L6	2327576	S	5 AND 2
L7	99	S	L5 AND L2
L8	36759	S	CVD
L9	6	S	L7 AND L8

L9 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2000 ACS

AN 1998:55645 CAPLUS

DN 128:148449

TI **Platinum** source compositions for CVD of **platinum**, preparation of **platinum** films using them, and RAM devices using the **platinum** films

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PA Advanced Technology Materials, Inc., USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

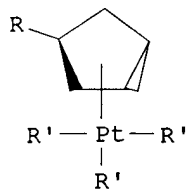
IC ICM C07F015-00

ICS C23C014-26; C23C016-00; G06F012-00; G06F013-00

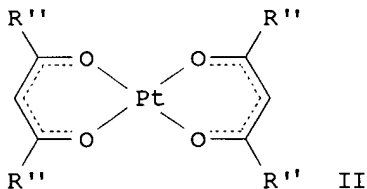
CC 76-3 (Electric Phenomena)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9800432	A1	19980108	WO 1997-US12762	19970627
	W: JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	US 5783716	A	19980721	US 1996-673372	19960628
	EP 920435	A1	19990609	EP 1997-936141	19970627
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1996-673372		19960628		
	WO 1997-US12762		19970627		
OS	MARPAT 128:148449				
GI					



I



II

AB A Pt source reagent soln. comprises .gtoreq.1 compd. of formula I, where  
R

= H, Me, Et, i-Pr, Pr, Bu, i-Bu, CMe<sub>3</sub>, trimethylsilyl, or trimethylsilyl methyl; and R' = Me, Et, i-Pr, Pr, Bu, i-Bu, CMe<sub>3</sub>, trimethylsilyl, or trimethylsilyl Me, or Pt (.beta.-diketonates)<sub>2</sub> of formula II, where R = Me, Et, Pr, i-Pr, Bu, i-Bu, CMe<sub>3</sub>, trifluoromethyl, perfluoroethyl, or perfluoropropyl, and a solvent. The Pt source reagent solns. are readily employed in a CVD system including a liq. delivery app. for volatilizing the source reagent soln. and transporting the resulting

vapor

to the CVD reactor for deposition of Pt on a substrate mounted in the CVD reactor.

ST **platinum** source compn chem vapor deposition; RAM

**platinum** film CVD

IT Chemical vapor deposition

(**platinum** source compns. for CVD of

IT     **platinum**)  
        Alcohols, processes  
        Esters, processes  
        Ethers, processes  
        Hydrocarbons, processes  
        RL: PEP (Physical, engineering or chemical process); TEM (Technical or  
              engineered material use); PROC (Process); USES (Uses)  
            (**platinum** source compns. for CVD of  
            **platinum** contg.)  
 IT     Capacitors  
        DRAM devices  
            (**platinum** source compns. for CVD of  
            **platinum** electrodes for)  
 IT     7782-44-7, **Oxygen**, processes    10024-97-2, Nitrogen oxide (N<sub>2</sub>O),  
        processes    10028-15-6, **Ozone**, processes  
        RL: PEP (Physical, engineering or chemical process); PROC (Process)  
            (CVD of **platinum** from cyclopentadienyl and  
            diketone complexes in presence of)  
 IT     67-63-0, Isopropanol, processes    109-99-9, Tetrahydrofuran, processes  
        110-54-3, Hexane, processes    111-65-9, Octane, processes    123-86-4,  
        Butyl acetate    142-82-5, Heptane, processes    143-24-8, Tetraglyme  
        36830-73-6, Bis(2,2,6,6-tetramethyl-3,5-heptanedionato)**platinum**  
        (II)    65353-51-7, Bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)  
        **platinum**    94442-22-5, (Methylcyclopentadienyl)trimethylplatinum  
        RL: PEP (Physical, engineering or chemical process); TEM (Technical or  
        engineered material use); PROC (Process); USES (Uses)  
            (**platinum** source compns. for CVD of  
            **platinum** contg.)  
 IT     7440-06-4, **Platinum**, processes  
        RL: DEV (Device component use); PEP (Physical, engineering or chemical  
        process); TEM (Technical or engineered material use); PROC (Process);  
 USES    (Uses)  
            (**platinum** source compns. for CVD of  
            **platinum**, prepn. of **platinum** films using them, and  
            RAM devices using **platinum** films)